

<Claims for US>

What is claimed is:

1. A distribution unit comprising:

a power circuit section including a plurality of bus bars with electronic parts mounted on at least some of the bus bars; and

an insulating case made of an insulating material for covering the power circuit section;

wherein ends of a plurality of specific bus bars included in the power circuit section are projected from a main body section of the power circuit section in a state in which they are placed near to each other to form fuse connection terminals;

each of the fuse connection terminals is formed at a tip thereof with a tip placement part to place a fuse terminal;

the insulating case is opened in the projection direction of the fuse connection terminals so as to enable the fuse terminal to be placed in the tip placement part of the fuse connection terminal placed in the insulating case from the outside of the insulating case; and

the insulating case is provided with a short-circuit prevention section intervening between the fuse connection terminals for preventing a short circuit between the fuse connection terminals.

2. The distribution unit as claimed in claim 1, wherein the insulating case has terminal insertion passages for separately



inserting the fuse connection terminals and an insulation case portion between the terminal insertion passages is formed as the short-circuit prevention section.

3. The distribution unit as claimed in claim 2, wherein at least a part of the terminal insertion passage is formed as a terminal insertion hole.

4. The distribution unit as claimed in claim 3, wherein the insulating case is divided into a lower case and an upper case; at least either of these cases is provided with a terminal guide groove for guiding an external connection terminal inserted into the terminal insertion hole; and

as the lower case and the upper case are assembled, the terminal guide groove forms the terminal insertion hole.

5. An electric connection box comprising a distribution unit as claimed in claim 1 and a bus bar board including a plurality of bus bars forming a power circuit connected to the power circuit section of the distribution unit;

wherein the fuse connection terminal is formed as a unit side fuse connection terminal;

a part of the bus bar is projected from the bus bar board in a direction along the fuse connection terminal in the proximity of the unit side fuse connection terminal to form a



bus bar board side fuse connection terminal; and

a fuse element is placed so as to straddle the unit side fuse connection terminal and the bus bar board side fuse connection terminal.

6. A distribution unit comprising:

a heat radiation member having a circuit disposition face;

a power circuit section including a plurality of bus bars disposed on the circuit disposition face;

external connection terminals formed by folding up ends of the bus bars placed near to each other from the circuit disposition face;

a surround wall member disposed on the heat radiation member so as to surround the power circuit section including the external connection terminals;

a connector housing including a bottom having terminal through holes into which the external connection terminals are inserted and a hood surrounding the external connection terminals projected to the opposite side to the circuit disposition face through the terminal through holes, the connector housing and the external connection terminals making up an external connection connector being connectable to a different connector; and

a water resistance layer;

wherein at the bottom of the connector housing, an



insulating projection rib intervening between the external connection terminals and having a tip against which the different connector is abutted is projected toward the tip side of the external connection terminals; and

the water resistance layer is formed in a state in which at least a part of the power circuit section is sealed inside the surround wall member and the water resistance layer leads to the inside of the connector housing through the terminal through hole and the top face of the water resistance layer is set higher than the bottom of the connector housing and is set lower than the tip face of the projection rib.

7. The distribution unit as claimed in claim 6, wherein the connector housing is formed at the bottom with a resin reservoir recess sinking into the heat radiation member side as the connector abutment face against which the tip face of the different connector abuts is left;

the terminal through holes are made in the formation area of the resin reservoir recess;

the projection rib is provided at the connector bottom between the terminal through holes; and

the tip face of the projection rib is positioned corresponding to the connector abutment face.

8. A distribution unit comprising:



a power circuit section including a plurality of bus bars with electronic parts mounted on at least some of the bus bars;

a heat radiation member having a circuit disposition face on which the power circuit section is disposed; and

a case for covering the power circuit section;

wherein ends of a plurality of specific bus bars included in the power circuit section are projected from the case to form external connection terminals;

each of specific external connection terminals of the external connection terminals has an upright part rising from the circuit disposition face and an extension part extending from the tip of the upright part to the outside of the circuit disposition face substantially in parallel with the circuit disposition face;

a different external terminal can be inserted into or removed from the external connection terminal through the tip part side of the extension part; and

the external connection terminal is provided with a deflection regulation part for abutting the upright part for regulating deflection on the opposite side to the extension direction of the extension part.

9. The distribution unit as claimed in claim 8, wherein the deflection regulation part is provided integrally with the case.



10. The distribution unit as claimed in claim 8, wherein at a tip part in the extension part of each of the specific external connection terminals, a tip slot part into which a different external terminal is inserted is formed along the extension direction of the extension part.

11. The distribution unit as claimed in claim 9, wherein at a tip part in the extension part of each of the specific external connection terminals, a tip slot part into which a different external terminal is inserted is formed along the extension direction of the extension part.